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(54) **METHOD OF ESTIMATING ROCK MECHANICAL PROPERTIES**

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(52) **U.S. Cl.**

CPC ***G01V 99/005*** (2013.01)

(58) **Field of Classification Search**

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See application file for complete search history.

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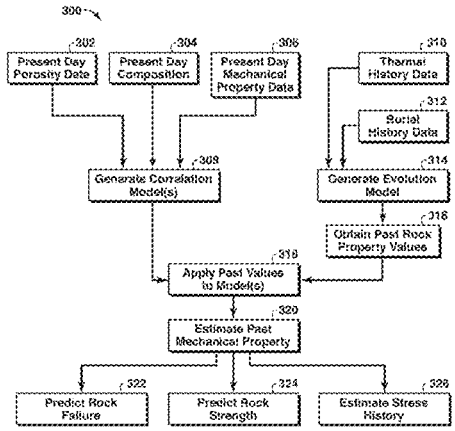
(57) **ABSTRACT**

A method of estimating at least one mechanical property value of a rock formation in the geologic past. In one embodiment, a correlation model is generated which correlates at least one mechanical property with a porosity value and a composition value relative to a first rock type. An estimation of a past porosity value and a past composition value is then generated for the rock formation at a point of time in the past. A mechanical property value at the point of time in the past is identified in the correlation model based on the estimated past porosity and past composition values.

11 Claims, 7 Drawing Sheets